DOCUMENT RESUME

ED 245 262 CS 208 428

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TITLE Factors of Believability of Television Newscasters.
PUB DATE Aug 84
NOTE 44p.; Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication (67th, Gainesville, FL, August 5-8, 1984). Print is small and light, and will reproduce poorly.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Attitudes; *Credibility; Females; Higher Education; Males; *News Reporting; *Sex Differences; *Television Research; *Television Viewing; Undergraduate Students
IDENTIFIERS *Audience Response

ABSTRACT

A study examined the differences in perceived credibility of male and female television news broadcasters. News directors' attitudes concerning what makes a newscaster believable were surveyed by telephone. Their descriptions were converted to semantic differential scales. Next, two videotaped newscasts were produced, one with a male and one with a female anchorperson, both using actors as the newscaster. Fifteen hundred undergraduate students viewed one of the two newscasts and then responded to the semantic differential scale. Prior to viewing the newscast, subjects read one of three descriptions of the newscaster, intended to manipulate the perceived credibility of the newscaster. A multiple discriminant analysis was run on the subjects' responses. The subjects found the male described as high credible to be slightly more believable than the female described as high credible. Credibility of the male and female newscaster was based on different qualities. The female newscaster was rated higher on "style" and "character," while the male newscaster was rated higher on "professionalism," "trustworthiness," and "sophistication." News directors' perceptions of what makes a newscaster credible did not coincide with those of viewers. (HTH)

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FACTORS OF BELIEVABILITY OF TELEVISION NEWSCASTERS

by

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Presented to the Radio-Television Journalism Division, Association for Education in Journalism and Mass Communication Annual Convention, University of Florida, Gainesville, Florida, August, 1984.

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National and local television news is perhaps the most pervasive source of information in the United States today. In addition, recent surveys have revealed that television enjoys a 2.5 to 1 advantage over newspapers as the "most believable" news medium.[1] An integral part of television news is the man or woman who delivers the news on the air. According to Baggaley and Duck, TV news programs "often seem centered on the projection of an image of the presenter above all else," and that "the viewer is offered not simply the news product but marked symbols of the presenters' worthiness."[2]

One important criterion for judging "presenters' worthiness" is perceived credibility.

> Clearly when the function of a TV broadcast is intended to be information (news/education/persuasion, etc.) cues to credibility are likely to be an extremely influential determinant of its intended effect.[3]

The idea that broadcaster credibility affects viewers' reactions to the news is consistent with results of credibility research in speech communication.

Research suggests that credibility is not something that a source possesses, but is a perception attached to the sources by those who receive them.[4] For example, Sherif, Sherif and Nebergall said "credibility and like terms do not represent

attributes of communicators; they represent judgments by listeners."[5]

Certainly credibility is a function of the listeners, but receivers respond to both verbal and nonverbal cues which are emmitted by the source. Mehrabian and Ferris, for example, demonstrated empirically the importance of nonverbal cues on source credibility.[6] They found that nonverbal cues, such as the sex of the speaker, affect the perceived credibility of any message source. It seems that this finding would apply to television newscasters.

Although the results of credibility research have been applied to television newscasters, the newscaster is not credible in the traditional sense of that word because he or she is not the source of the information delivered. The messages imparted by the newscaster comes from other sources such as the wire services and local and network reporters. For this reason, the construct "believability" rather than "credibility" will be examined in this study. It is thought that a viewer is asked to believe that what a newscaster is saying is true, even though he or she is not the source of the information.

Most research investigating sex differences in the mass media has focused primarily on the portrayal of sex roles in such areas as advertising and programming. However, there is a dearth of scholarly work dealing with differentiation on the basis of sex in the area of television news.[7]

This study was conducted in an effort to answer questions about the relative believability of male versus female television newscasters. It was guided by six main research questions:

1. Are female newscasters perceived to be as believable as male newscasters by television viewers?
2. Do news directors' perceptions of believable television newscasters coincide with viewer perceptions?
3. Does dimensionality of the perceived believability of television newswomen differ from dimensionality of perceived believability of television newsmen?
4. Is the construct of believability sex-bound, or can women exhibit certain qualities and be as believable as men?
5. Are believable male newscasters and believable female newscasters perceived as such because of different factors?
6. Can a measure be developed that can be used by news directors to test prospective newscasters with reasonable assurance that it will be reliable and valid in determining believability?

Background and Significance of the Study

Since its beginning, television news has been a predominately male-dominated industry. Although women have appeared in television news throughout the years, and it is no longer novel to see a female reporter or anchor, their position is hardly significant today.[8]

The attitudes of television station executives concerning what the public wants sometimes keep women from being hired as newscasters, and long-held attitudes are slow to change. In 1971 Reuven Frank, then president of NBC news, said, "I have the strong feeling that audiences are less prepared to accept news from a woman's voice than from a man's."[9] Similar comments had been heard from broadcast executives since the early years of radio. Although most news executives would claim that these attitudes do not prevail in the 1980s, a recent interview with the late NBC newswoman Jessica Savitch would seem to indicate that they do.

> When I first started into interviewing, I hit the old obstacles. They said, 'No, you can't do that job in news.' Why? 'Because you're a woman,' they said. What do you mean? 'Women don't look at other women,' they said. Why? 'A woman's voice

> doesn't have authority,' they said. 'A woman can't work late hours,' they said. 'Therefore a woman can't do the job.'[10]

A survey done in 1974 at the University of Wisconsin of "Attitudes Toward Television Newswomen" provides more evidence concerning such assumptions. Stone cites the usual justification for few women in important news positions: the news directors' belief that the viewing audience will not accept a female newscaster as an authority figure.[11]

The study compared the attitudes of the news directors with those of non-media respondents. It showed that 51% of non-media respondents had no preference about the sex of an evening newscaster, while news directors estimated about 67% would prefer a man. One of the traditional arguments by broadcast news directors against using women as on-air reporters is that they do not seem as believable as men. Only about one-fifth of the other respondents said they would be more likely to believe a news report by a man. If sex-related believability is not a major factor for most viewers, why would many of them say they prefer a man to a woman for television reporting? The only reason 65% said they preferred a man in any aspect of newscasting was because "it's just what I've gotten used to."[12]

The literature revealed three instruments which reportedly measure the perceived credibility of television newscasters; they

were constructed by McCroskey and Jenson,[13] Markham,[14] and Smith.[15] In subsequent research, McCroskey and Jenson's instrument has been most used. It consists of 25 semantic differential scales distributed among five components of credibility. They suggest these would be appropriate to measure the perceived credibility of television newscasters.[16]

It was felt that the McCroskey and Jenson instrument is inappropriate for this study or any other study of television newscasters for three major reasons. First, this study is of the relative believability of male versus female television news sources. McCroskey and Jenson employed all media news sources.[17] Research indicates that the criteria people use to evaluate credibility of communication sources are dependent upon the specific situation. It would seem that reading a news magazine, reading a student newspaper, and watching a televised newscast would be vastly different situations requiring different criteria of evaluation.

Second, the McCroskey and Jenson study did not report the sex of the newscasters used. All male newscasters may have produced results which are inapplicable to female newscasters.

Third, news directors have most often voiced reservations concerning female newscasters although survey research has shown that viewers do not necessarily share their attitudes. While the McCroskey and Jenson study used semantic differential scales representing dimensions of source credibility reported by Norman,

McCroskey, Markham, and Whitehead, and Berlo, Lemert, and Mertz,[18] these scales do not reflect any attitudes concerning television newscasters. Since news directors usually are responsible for hiring newscasters, their attitudes concerning what the public wants is important.

Methodology

The present study was run in two major parts. First, news directors' attitudes concerning what makes a newscaster believable were surveyed. Their descriptions were converted to semantic differential scales. Next, two videotaped newscasts were produced, one with a male anchor person and the other with a female anchor person. Subjects viewed one of the two newscasts and then responded to the semantic differential scales.

In order to ascertain news directors' opinions concerning the believability of television newscasters, a national telephone survey was conducted. The news directors surveyed were selected, using a table of random numbers, from the Broadcasting Yearbook's "Directory of Television Stations in the United States."[19] One hundred news directors were interviewed, representing 48 states.

The news directors were first asked to describe a believable newscaster. Next, a predetermined set of adjectives was presented and respondents were asked to rate the adjectives as "very

important," "important," "not so important," or "not descriptive" in describing a believable newscaster.

Experimental Methodology

The population used in the study contained approximately 1500 undergraduate students enrolled in a multi-section speech fundamentals course at a large state university. To simplify data collection, block sampling procedure, which has been used successfully by other researchers in Speech Communication, was used.[20]

The testing situation for each treatment condition began when subjects arrived at their speech class. Instructors introduced the experimenter to the potential respondents. Subjects were told that a tape they were about to see was an "audition tape." The experimenter then played the appropriate videotape. After it was completed, the subjects recorded their reactions to the semantic differential scales and close-ended questions.

Newscast Production

Two confederates were hired to portray local television newscasters. Both had performed on television before. They were selected primarily on the basis of how well their physical

characteristics adhered to what the research has shown to be an "ideal" newscaster.[21] The male was white, 43 years old, brown hair, with a medium height and build. The female newscaster was white, 24 years old, brunette, with an average height and build. Both the female and the male were dressed similarly to actual male and female local television newscasters in the area and the presentation was taped on the news set of a local station.

A 1,054 word news script was composed from UPI and AP wire services. The male read the script at 150 words per minute and the female read it at a rate of 162 words per minute. Although they did not read the script at the same rate it was believed that the differences in effect would be slight since a rate of less than 190 words per minute does not appear to affect the perceived credibility of newscasters.[22]

There were some differences between the stimulus newscasts and regular evening newscasts. Since subjects' attention was to be focused on the newscaster, the newscasts did not include stories by other reporters. However, slides were inserted behind the anchors to add visual variety.

A teleprompter was used so each newscaster maintained eye contact with the camera throughout the simulated newscast. According to previous research, this should have aided the newscasters' credibility.[23]

Data Analysis

The data analysis took place in three parts: the news director's survey data was analyzed and converted to semantic differential scales, the subjects' responses to the semantic differential scales were scored, and a multiple discriminant analysis was run on the subjects' responses.

The news directors rated 60 adjectives as "very important," "important," "not so important," or "not descriptive," in describing a believable newscaster. The only adjectives converted to semantic differential scales were those which at least 50 percent of the newscasters rated "very important" or "important." Only 38 of the 60 adjectives met this criteria. The open-ended question was treated in a similar manner. When at least 50 percent of the newscasters chose a word to describe a believable newscaster it was used. Only six adjectives met this requirement.

The data was analyzed using the DISCRIMINANT subprogram available in the Statistical Package for the Social Sciences, which performs discriminant analysis.[24] Discriminant analysis was used because it statistically distinguishes between groups of cases.

Subjects viewed one of two newscasts, either a male or a female. Prior to viewing the newscast, the subjects read one of three descriptions of the newscaster. The descriptions were used to manipulate the perceived credibility of the newscaster. There

were then six groups subject to the discriminant analysis: low-credible female, low-credible male, medium-credible female, medium-credible male, high-credible female, and high-credible male.

The descriptions intended to manipulate credibility were determined in the following manner. According to the news directors' survey, 16 adjectives were rated "very important" or "important" by 90-100 percent of those surveyed. Those adjectives were: intelligent - 96%, poised - 90%, responsible - 92%, confident - 97%, trained - 96%, qualified - 92%, pleasant - 92%, informed - 100%, composed - 90%, competent - 99%, reliable - 96%, fluent - 92%, rational - 99%, consistent - 92%, unbiased - 98%, and neat - 92%. In the open-ended question, the news directors most often described a believable newscaster in terms of experience, for example, "a working journalist," or "a good writer and reporter first."

In describing the newscasters, years and kinds of experience and level of education were used for the adjectives "trained, qualified, and experienced." The word "confident" was used for the adjectives "poised, confident, and composed." The remainder of the adjectives were attributed to "a news director," which should be perceived to be a highly credible source. The adjectives were presented in a number and intensity relative to the treatment condition of the group (high, medium, or low credibility).

Scores on semantic differential scales were expected to differ according to description and sex of the newscaster. The mathematical objective of discriminant analysis is to weight and linearly combine the discriminating variables in some fashion so that the groups are forced to be as statistically distinct as possible.

Discriminant analysis attempts to do this by forming one or more linear combinations of the discriminating variables. The functions are formed in such a way as to maximize the separation of the groups. Once the discrimant functions have been derived, the two research objectives of this technique, analysis and classification, may be pursued.[25]

The analysis aspect provided statistical tests for measuring the success with which the discriminating variables actually discriminate when combined into the discriminant functions. This is similar to determining the number of factors in factor analysis. In this respect they serve to identify the variables which contribute most to differentiation along the respective dimension (function).[26]

Once a set of variables is found which provides satisfactory discrimination for cases with known group memberships, a set of classification functions can be derived which will permit the classification of new cases with unknown memberships. Thus, if characteristics or adjectives are found that do well in predicting what a male or female newscaster believable to

viewers, these can be used to predict the likely credibility of other newscasters.

Results

Selection of Variables for Analysis

The variables were selected for inclusion in the discriminant analysis on the basis of their discriminating power. In this study, the full set of 44 variables contained excess information about the groups' difference and some of the variables were not very useful in discriminating among the groups. By sequentially selecting the "next best" discriminator at each step, a reduced set of variables was found which is as good as, or better than, the full set. This is referred to as the "stepwise method" of selection.

The process begins by choosing the single variable which has the highest value on the selection criterion. This initial variable is then paired with each of the other available variables, one at a time, and the selection criterion is computed. The new variable which in conjunction with the initial variable produces the best criterion value is selected as the second variable to "enter the equation." These two are then combined with each of the remaining variables, one at a time, to form triplets which are evaluated on the criterion. The triplet

with the best criterion value determines the third variable to be selected. This procedure of locating the next variable that would yield the best criterion score, given the variables already selected, continues until all variables are selected or no additional variables provide a minimum level of improvement.[27]

The selection criterion chosen for this study is the overall multivariate F ratio for the test of differences among the group centroids. The variable which maximizes the F ratio also minimizes Wilks' Lambda, a measure of group discrimination. A variable is considered for selection only if its partial multivariate F ratio is larger than a specified value. The partial F ratio measures the discrimination introduced by the variable after taking into account the discrimination achieved by the other selected variables. This partial F test is performed before the variable is evaluated on the stepwise entry criterion. If the partial F is too small the variable is not considered for inclusion, regardless of its value on the entry criterion.

Using this method, 14 variables were eliminated from the analysis. These variables are listed in Table 1. The 30 variables which remained in the analysis are listed in Table 2.

TABLE 1

VARIABLES ELIMINATED FROM ANALYSIS

Variable Name	Tolerance†	F to Enter	Wilks' Lambda
sociable-retiring	0.5433298	0.99250	0.2363700
good natured-mean	0.4824942	0.28132	0.2380199
verbal-quiet	0.6283214	0.91532	0.2365479
illogical-logical	0.5719324	0.50764	0.2374924
confident-lacks con.	0.5609470	0.77757	0.2368662
qualified-unqualified	0.4927609	0.75547	0.2369174
unpleasant-pleasant	0.5807622	0.58755	0.2372834
competent-incompetent	0.4645036	0.36924	0.2378147
expert-inexpert	0.5900122	0.41601	0.2377057
reliable-unreliable	0.5753346	0.53050	0.2374192
outgoing-withdrawn	0.5025935	0.45037	0.2376257
neat-careless	0.5652970	0.55040	0.2373930
professional-unprof.	0.5343439	0.52447	0.2374532
authenic-false	0.6188050	0.66622	0.2371241

†An additional test, performed before a variable is actually accepted, is a test to see if the "tolerance" for this variable is sufficiently high. A tolerance check is needed to detect situations in which rounding error during the inversion of the pooled within-groups covariance matrix would have a serious effect upon the results.

TABLE 2

VARIABLES REMAINING IN THE ANALYSIS

Variable Name	Tolerance	F to Remove	Wilks' Lambda
friendly-unfriendly	0.5846374	1.7990	0.2424280
intelligent-unintelligent	0.5713352	1.3311	0.2417998
poised-nervous	0.6040325	2.3596	0.2442112
relaxed-tense	0.6986314	5.6738	0.2519817
responsible-irresponsible	0.4894762	1.0605	0.2417653
experienced-inexperienced	0.5792213	2.8409	0.2453398
calm-anxious	0.6815040	2.1054	0.2436154
trained-untrained	0.6439671	4.6376	0.2495522
sympathetic-unsympathetic	0.7414563	2.5660	0.2447000
just-unjust	0.6381732	1.5526	0.2423191
bold-timid	0.6401858	3.5394	0.2469774
energetic-tired	0.7493035	1.4669	0.2421184
attractive-unattractive	0.6949229	6.0990	0.2529787
informed-uninformed	0.4997725	1.8396	0.2429920
composed-excitable	0.6760429	1.8648	0.2430511
active passive	0.6389188	3.3277	0.2464811
impressive-unimpressive	0.5049764	1.1407	0.2413535
fluent-hesitating	0.5994731	2.8078	0.2452621
rational-irrational	0.5859645	1.4700	0.2421256
imaginative-unimaginative	0.5519671	3.9664	0.2479786
scruplous-unscruplous	0.7693331	2.3483	0.2441848
consistent-inconsistent	0.5717473	1.3224	0.2417794
original-unoriginal	0.5708834	1.6046	0.2427412
open-secretive	0.6253628	2.1962	0.2438281
biased-unbiased	0.7193510	9.0959	0.2600050
interesting-dull	0.4852588	1.2408	0.2416819
sincere-insincere	0.5377400	2.2826	0.2440309
authoritive-groundless	0.4776578	1.1998	0.2414921
communicative-disjointive	0.4763078	1.7259	0.2437255
personable-unpersonable	0.5578632	1.9942	0.2433546

Canonical Discriminant Functions

There are three measures for judging the importance of discriminant functions. The first is the relative percentage of the eigenvalue associated with the function. Since there is no fixed rule for deciding when the eigenvalue is too small to accept, all functions will be reported and criteria for deciding their importance will be discussed.

Second is the discriminant function's associated canonical correlation. It explains how closely the function and the "group variable" are related, which is just another measure of the function's ability to discriminate among the groups. If the logic is reversed, one can interpret the canonical correlation squared as the proportion of variance in the discriminant function explained by the groups.

The third criterion for eliminating discriminant functions is to test for the statistical significance of discriminating information not already accounted for by the earlier functions. As each function is derived, starting with no (zero) functions, Wilks' Lambda is computed. Lambda is then transformed into a chi-square statistic for an easy test of statistical significance. The canonical discriminant functions are reported in Table 3.

TABLE 3
CANONICAL DISCRIMINANT FUNCTIONS

Function Number	Eigenvalue	Percent of Variance	Cumulative Percent	Canonical Correlation	:	After Function	Wilks' Lambda	Chi-Squared	D.F.	Sig.
					:	0	0.2386790	752.13	150	0.0000
1	1.44183	71.12	71.12	0.7684210	:	1	0.5828131	283.44	116	0.0000
2	0.22645	11.71	82.29	0.4296932	:	2	0.7247891	176.28	84	0.0000
3	0.18675	9.21	91.50	0.3966927	:	3	0.8482785	86.387	54	0.0034
4	0.11674	5.76	97.26	0.3233235	:	4	0.9473084	28.419	26	0.3382
5	0.05562	2.74	100.00	0.2295465	:					

Rotation of the Data

In discriminant analysis, as in factor analysis, it is useful to rotate the data while holding constant the relative locations of the cases and centroids. The VARIMAX rotational solution was used here.

The VARIMAX rotation transformation matrix is shown in Table 4. The total amount of variance is the same as in Table 3 -- 100 percent. The major difference is in the percentage of variance for each of the functions. It is different because the functions are not extracted in their order of importance based on the amount of variance extracted.

TABLE 4

VARIMAX ROTATION TRANSFORMATION MATRIX

	Funct 1	Funct 2	Funct 3	Funct 4	Funct 5
% of Variance	54.56	17.94	11.96	8.95	6.60
Funct 1	0.86322	0.43685	0.23592	0.08773	0.02561
Funct 2	0.27016	-0.41862	-0.48744	0.71177	0.08696
Funct 3	-0.07952	-0.28755	0.66519	0.23820	0.64169
Funct 4	-0.26449	0.20958	0.42566	0.58845	-0.59875
Funct 5	-0.32494	0.71225	-0.28794	0.28755	0.47065

The Discriminant Functions

The discriminant functions are the primary objectives of this study. They represent the underlying dimensions that summarize or account for the believability of television newscasters. They will be explained in three parts: determining the number of functions, criteria for the significance of function loadings, and naming of functions.

The maximum number of discriminant functions is either one less than the number of groups or equal to the number of discriminating variables, whichever is smaller. In this study, (g-1) or five functions were derived.

The criteria for the significance of function loadings vary according to many factors. The following guidelines for deciding which functions are worth considering were used in this study:

(1) the larger the sample size the smaller the loading to be considered significant; (2) the larger the number of variables being analyzed the smaller the loading to be considered significant, and (3) the larger the number of functions, the larger the size of the loading on later functions to be considered significant for interpretation.[28] In this study, the cutoff point for significance was set at ±.20.

The functions derived in this study are listed in Table 5. In discriminant analysis, variables which have no discriminating power are excluded from analysis, therefore the variables remaining in these five functions accounted for 100 percent of the variance. The functions were labeled "Professionalism," "Style," "Trustworthiness," "Sophistication," and "Character." The naming of functions is not very scientific and is based on the subjective opinion of the analyst. The names are logical and represent the underlying nature of the functions. They should facilitate the presentation and understanding of the function solutions.

TABLE 5

THE DISCRIMINANT FUNCTIONS

Function/scales	Loadings
FUNCTION 1 - PROFESSIONALISM	54.56 PERCENT OF VARIANCE
unbiased-biased	0.51775
intelligent-unintelligent	0.19801
FUNCTION 2 - STYLE	17.94 PERCENT OF VARIANCE
relaxed-tense	0.58653
fluent-hesitating	-0.45779
friendly-unfriendly	-0.37499
scrupulous-unscrupulous	0.35473
open-secretive	0.34696
impressive-unimpressieve	-0.27406
just-unjust	0.25880
sympathetic-unsympathetic	0.21553
FUNCTION 3 - TRUSTWORTHINESS	11.96 PERCENT OF VARIANCE
bold-timid	0.48376
original-unoriginal	0.42698
rational-irrational	0.41335
sincere-insincere	0.41004
informed-uninformed	-0.38895
responsible-irresponsible	-0.34264
intresting-dull	0.31205
consistent-inconsistent	-0.26418
experienced-inexperienced	0.22948
FUNCTION 4 - SOPHISTICATION	8.95 PERCENT OF VARIANCE
attractive-unattractive	0.73130
trained-untrained	0.53800
poised-nervous	0.40157
communicative-disjointed	0.40097
calm-anxious	-0.32063
authoritative-groundless	-0.29465
FUNCTION 5 - CHARACTER	6.60 PERCENT OF VARIANCE
imaginative-unimaginative	-0.70571
active-passive	0.57930
personable-unpersonable	0.49535
energetic-tired	0.36276
composed-excitable	0.27404

Canonical Discriminant Functions Evaluated at Group Means

By averaging the scores for the individual cases within a particular group, the group mean on the respective function is derived. For a single group, the means on all the functions are referred to as the group centroid, which is the most typical location of a case from that group in the discriminant function space. A comparison of the group means on each function shows how far apart the groups are along that dimension. The functions are arranged in order of decreasing importance, so that a given difference between group means on the third or fourth function is not as meaningful as the same difference on the first function.

The canonical discriminant function coefficients are of great analytic importance in and of themselves. When the sign is ignored, each coefficient represents the relative contribution of a function to a group. The sign merely denotes whether the function had a positive or negative influence on the group. The canonical discriminant functions evaluated at group means are listed in Table 6.

In this study, the canonical discriminant function coefficients help to determine differences in male and female newscaster believability. Group 1 (in Table 6) represents the high-credible female newscaster and Group 4 represents the high-credible male. The data in this table indicates that the

order of importance of the functions differs according to the sex of the newscaster. Table 7 shows the specific functions in order of importance for the high-credible female and nigh credible male newscasters. This seems to indicate that when male and female television newscasters are perceived as being believable, they are so because of the same qualities but in different orders of importance.

TABLE 6

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS

Group	Function 1 PROF.	Function 2 STYLE	Function 3 TRUST.	Function 4 SOPH.	Function 5 CHARACTER
01					
High-cred female	1.16060	0.55259	-0.36233	0.46039	-0.28511
02					
Med-cred female	-0.00871	-0.41803	0.41816	0.55509	-0.02885
03					
Low-cred female	-0.75540	-0.84298	-0.57406	-0.07839	0.52580
04					
High-cred male	1.32765	0.10408	0.60457	-0.52095	0.07017
05					
Med-cred male	-0.22741	0.45570	0.43228	0.05286	0.30659
06					
Low-cred male	-1.69073	-0.50313	-0.51988	-0.51988	-0.59151

TABLE 7
DIFFERENCES IN IMPORTANCE OF FUNCTIONS
OF HIGH-CREDIBLE FEMALE AND HIGH CREDIBLE MALE
TELEVISION NEWSCASTERS[1]

HIGH-CREDIBLE FEMALE	HIGH-CREDIBLE MALE
PROFESSIONALISM	PROFESSIONALISM
unbiased	unbiased
intelligent	intelligent
STYLE	TRUSTWORTHINESS
relaxed	bold
fluent	original
friendly	rational
scrupulous	sincere
open	informed
impressive	responsible
just	interesting
sympathetic	consistent
SOPHISTICATION	experienced
attractive	SOPHISTICATION
trained	attractive
poised	trained
communicative	poised
calm	communicative
authoritative	calm
TRUSTWORTHINESS	authoritative
bold	STYLE
original	relaxed
rational	fluent
sincere	friendly
informed	scrupulous
responsible	open
interesting	impressive
consistent	just
experienced	sympathetic
CHARACTER	CHARACTER
imaginative	imaginative
active	active
personable	personable
energetic	energetic
composed	composed

[1]Presented in order of importance

Classification Results

Discriminant analysis is also a powerful classification technique. By classification is meant the process of identifying the likely group membership of a case when the only information known is the case's values on the discriminating variables. Classification is also used to test the adequacy of the derived discriminant functions. By classifying the cases used to derive the functions in the first place and comparing predicted group membership with actual group membership, one can empirically measure the success of discrimination by observing the proportion of correct classification.

Under the assumption of a multivariate normal distribution, the classification scores can be converted into probabilities of group membership. The rule of assigning a case to the group with the highest score is then equivalent to assigning the case to the group for which it has the greatest probability of membership. For those cases in groups used in the analysis, the actual group membership is, of course, known. The purpose of classifying these cases is to see how effective the discriminating variables are. If a large population of misclassifications occur, then the variables selected are poor discriminators. From the classification table (Table 8) one can also tell whether the

errors tend to fall into certain groups, which perhaps are not as distinct as others.

There is no lowest proportion of correct classifications established which determines success in discrimination. As Table 8 shows, the discriminant functions were successful since most actual group cases fell into the predicted group member classification. The most distinct groups were the "high-credible female" (Group 1), the "high-credible male" (Group 4), and the "low-credible male" (Group 6). There was no large proportion of misclassifications in any of the groups. This seems to indicate that the variables are good discriminators -- not only do they describe viewer perceptions of high-credible male and female newscasters, but the absence of these variables describes perceptions of low-credible male and female newscasters.

TABLE 8

CLASSIFICATION RESULTS

Actual Group	No. of Cases	1	2	3	4	5	6
Group 1	97	55 56.7%	9 9.3%	5 5.2%	18 18.6%	7 7.5%	3 4.4%
Group 2	91	14 15.4%	41 45.1%	10 11.0%	6 6.6%	16 17.6%	4 4.4%
Group 3	91	7 7.7%	10 11.0%	39 42.9%	4 4.4%	3 3.3%	28 30.8%
Group 4	92	15 16.3%	6 6.5%	2 2.2%	61 66.3%	7 7.6%	1 1.1%
Group 5	87	6 6.9%	19 21.8%	8 8.2%	11 12.6%	39 44.8%	4 4.6%
Group 6	86	3 3.5%	2 2.3%	11 12.8%	0 0.0%	7 8.1%	63 73.6%

PERCENTAGE OF "GROUPED" CASES CORRECTLY CLASSIFIED: 54.78%

Summary and Discussion

The results of this study are most clearly understood when discussed in answer to the research questions.

1. Are female newscasters perceived to be as believable as male newscasters by television viewers?

The discriminant analysis suggested the presence of five dimensions of believability of television newscasters. The dimensions, labeled "Professionalism," "Style," "Trustworthiness," "Sophistication," and "Character," were the same for male and female newscasters; however, the order of importance of the dimensions differed.

As Table 9 shows, the canonical discriminant functions evaluated at group means found the high-credible male to be slightly more believable than the high-credible female. However, the female newscaster was rated higher on "Style" and "Character," while the male newscaster was rated higher on "Professionalism," "Trustworthiness," and "Sophistication."

TABLE 9

CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS OF HIGH-CREDIBLE MALE AND FEMALE NEWSCASTERS

Function	High-Credible Male	High-Credible Female
Function 1		
PROFESSIONALISM	1.32765	1.16960
Function 2		
STYLE	0.10408	0.55259
Function 3		
TRUSTWORTHINESS	0.60467	-0.38233
Function 4		
SOPHISTICATION	-0.52095	0.46039
Function 5		
CHARACTER	0.07017	-0.28511

2. Do news directors' perceptions of believable television newscasters coincide with viewer perceptions?

The methodology used to determine news directors' perceptions was different from that used to determine viewer perceptions so no statistical correlation could be run. Table 10 lists the adjectives used by news directors and the viewers' responses to those adjectives rank-ordered according to importance. It seems obvious that the news directors' perceptions do not coincide with viewer perceptions. The perceptions seem even more different when it is remembered that all 44 adjectives are considered to be significant by at least 50 percent of the news directors surveyed and the viewers' responses to the last 14 variables were not significant and were not included in the analysis.

TABLE 10
COMPARISON OF NEWS DIRECTORS' PRECEPTIONS
AND VIEWERS' PERCEPTIONS

Viewers' Rankings†	F	News Directors Rankings	
unbiased	9.0950	informed	100
attractive	8.0990	rational	99
relaxed	5.6783	competent	99
trained	4.6376	unbiased	98
imaginative	3.9664	confident	97
bold	3.5394	intelligent	96
active	3.3277	trained	96
experienced	2.8409	reliable	96
fluent	2.8078	responsible	92
sympathetic	2.5680	qualified	92
poised	2.3596	pleasant	92
scrupulous	2.3483	fluent	92
sincere	2.2826	consistent	92
open	2.1962	neat	92
calm	2.1054	poised	90
personable	1.9942	composed	90
composed	1.8648	relaxed	88
informed	1.8396	experienced	88
communicative	1.7259	interesting	88
original	1.6046	calm	86
friendly	1.5990	logical	85
just	1.5526	expertness	84
rational	1.4700	original	84
energetic	1.4669	just	81
intelligent	1.3311	energetic	78
consistent	1.3224	open	76
interesting	1.2608	friendly	72
authoritative	1.1998	verbal	72
impressive	1.1407	outgoing	68
responsible	1.0605	imaginative	66
sociable	0.99250	impressive	64
verbal	0.91532	sociable	60
confident	0.77757	attractive	60
qualified	0.75547	scrupulous	60
authentic	0.66622	bold	60
pleasent	0.59755	authoritative	60
neat	0.55040	professional	59
reliable	0.53050	sincere	58
professional	0.52447	communicative	55
logical	0.50764	personable	54
outgoing	0.45037	authentic	53
expert	0.41601	active	52
competent	0.36924	good natured	52
good natured	0.26132	sympathetic	50

†Ranked in decending order of importance.

3. Does dimensionality of the perceived believability of television newswomen differ from dimensionality of perceived believability of television newsmen?

Although dimensionality of the perceived believability of television newswomen was the same as dimensionality of television newsmen, the response to the female newscaster was higher on some dimensions than the response to the male newscaster. (See Table 9).

4. Is the construct of believablity sex-bound, or can women exhibit certain qualities and be as believable as men?

Since the male newscaster was slightly more believable than the female newscaster and the male newscaster was rated higher on "Professionalism," "Trustworthiness," and "Sophistication," it would follow logically that if a woman exhibited the qualities underlying these three functions, she would be perceived as being more believable.

5. Are believable male newscasters and believable female newscasters perceived as such because of different factors?

Again it would seem that male newscasters are perceived as believable when they exhibit the qualities underlying "Professionalism," "Trustworthiness," and "Sophistication," and female newscasters exhibit the qualities underlying "Style" and "Character." However, it is most important for both sexes to exhibit the qualities underlying "Professionalism." That is, if a newscaster exhibits the qualities of being "unbiased" and "intelligent," he or she will be perceived as being believable.

6. Can a measure be developed that can be used by news directors to test prospective newscasters with reasonable assurance that it will be reliable and valid in measuring believability?

Although more research needs to be done before a measure can be developed that can be used by news directors to test the believability of prospective newscasters, this study is certainly a beginning.

Four criteria of measuring instruments were taken from research which discussed credibility measurement. These criteria are 1) the instrument must be specifically designed to measure the perceived believability of television newscasters; 2) the instrument must be based on a large sample,[29] i.e., ten times the number of variables;[30] 3) reliability must be tested with other

than test retest procedures;[31] and 4) arguments for the validity of the instrument must be made. The first two criteria were easily met by this study. Reliability was not directly tested. Construct validity is suggested both by visual examination of the scales and the fact that reasonable factorial stability was observed. Predictive validity is suggested from the classification results. (See Table 8) It is therefore concluded that with just a small amount of additional research, the dimensions found in this study can be developed into a measuring instrument.

Conclusions and Recommendations

The conclusions and recommendations presented pertain not only to the results of this study, but also to the position of women in television news.

First, television news directors should work to establish consistent criteria for evaluating the believability of newscasters. Although they claim to be reflecting the wants and needs of the public in their hiring decisions, the results of this study would seem to indicate that they are not. This general lack of a critical standard can be exemplified by the news directors' responses to the open-ended question: "How would you describe a believable newscaster?" This question elicited a dribble of responses which was of little empirical value. As one

surveyed news director said, "what do I look for when I look? I never really thought about it before." This lack of a critical standard implies arbitrary decision-making by the news directors which may reflect the needs of the station, but certainly does not reflect the needs of the public.

Second, The dimensions found here should be used only to evaluate the believability of television newscasters and not any presentation of televised information. For example, it could not be used to evaluate televised commercials, public service announcements, weather persons, sportscasters, or political addresses. The evaluation criteria must be different.

Third, subjects' reactions to male versus female newscasters could be a result of socialization. As Roberts pointed out socialization in part is the result of the communication environment in which individuals live. One aspect of the communication environment is the models that are portrayed on television.[32] The subjects in this study were primarily college freshmen and sophomores whose mean age was 20 years old. These individuals attend to the media and it therefore follows that the models presented in the media could have affected their evaluations of the confederates they viewed on television in this experiment. While most of the subjects were probably raised on a steady diet of Walter Cronkite, because of their youth, they are probably almost equally accustomed to Barbara Walters and Jessica Savitch.

Finally, although Affirmative Action opened the doors of television news to women more than ten years ago, they are not yet on firm ground. This is primarily because of the viewers' emphasis on the woman's physical attractiveness, rather than on her ability. In this study, "attractiveness" was surpassed only by "unbiased" in the subjects' evaluations of believable newscasters. Although only 60 percent of the news directors surveyed (See Table 10) felt attractiveness is important, cases such as Christina Craft's would seem to indicate that attractiveness is one of the most important evaluative criteria. Even Walter Cronkite has often voiced concern about the emphasis on the "pretty face" in television news. This importance placed on attractiveness affects men as well as women, but women, it seems, are more adversely affected.

End Notes

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